



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,491	12/11/2003	Maksim Ioffe	NVID-078/00US	1636
23419	7590	07/23/2007	EXAMINER	
COOLEY GODWARD KRONISH LLP			WHIPPLE, BRIAN P	
ATTN: Patent Group			ART UNIT	PAPER NUMBER
Suite 500			2152	
1200 - 19th Street, NW			MAIL DATE	DELIVERY MODE
Washington, DC 20036-2402			07/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/734,491	IOFFE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian P. Whipple	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 December 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/11/03.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-14 are pending in this application and presented for examination.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tripunitara et al. (Tripunitara), U.S. Patent No. 6,771,649 B1, in view of Akgun et al. (Akgun), U.S. Patent No. 7,039,049 B1.

4. As to claim 1, Tripunitara discloses a method of using a networking subsystem to prevent spoofing of an address resolution cache of a host computer (Col. 3, ln. 3-14), the method comprising:

    said networking subsystem receiving an unsolicited message from a network that submits a new address resolution for a network protocol address (Col. 5, ln. 33-35 and 53-55);

    said networking subsystem checking independently cached address resolution information (Col. 2, ln. 19-24; Col. 5, ln. 34-46);

in response to determining that cached address resolution information for said network protocol address has an old address resolution which differs from said new address resolution (Col. 5, ln. 51-53 and 65-67), said networking subsystem issuing a request for network elements having said network protocol address to reply with address resolution information (Col. 5, ln. 46-55);

in response to determining that no reply messages confirm that a network element has said old address resolution (Col. 5, ln. 32-40), said networking subsystem permitting at least one message to pass onto said host computer which includes said new address resolution (Col. 5, ln. 32-40); and

in response to receiving a reply message that confirms a network element has said old address resolution (Col. 5, ln. 46-55), said networking subsystem blocking at least one message which include said new address resolution from passing onto said host computer (Col. 5, ln. 41-46);

wherein said networking subsystem protects said host computer from spoofed address resolution messages (Col. 1, ln. 19-31; Col. 2, ln. 19-24).

Tripunitara may be interpreted as disclosing a firewall, as a “dynamic packet filter” is shown in Fig. 2. However, Tripunitara does not use the term “firewall.”

However, Akgun discloses a firewall (Abstract, ln. 10-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tripunitara by using a firewall as taught by Akgun in order to place an intermediary device in between incoming communications and host

computers, for the purpose of providing an extra layer of security for the host computers.

5. As to claim 2, Tripunitara and Akgun disclose the invention substantially as in parent claim 1, including said network implements a LAN network running Internet Protocol using the Address Resolution Protocol (ARP) for resolving medium access control (MAC) addresses, and said address resolution cache is an ARP cache mapping IP addresses to MAC addresses (Tripunitara: Col. 3, ln. 15-37).

Tripunitara and Akgun do not explicitly define the use of IPv4. However, Official Notice is taken that IPv4 is extremely well known in the art and the standard for IP communications in LAN and Internet communications.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tripunitara and Akgun by using the well-known IPv4 in order to implement a pre-defined standard for network communications, for the purpose of maximizing the compatibility with other networking elements.

6. As to claim 3, the claim is rejected for the same reasons as claim 2 above. IPv6 with Neighbor Discovery is extremely well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Tripunitara and Akgun by using IPv6 with Neighbor Discovery in order to implement a pre-defined standard for network communications, for the purpose of maximizing the

compatibility with other networking elements, and in order to add the capacity for a greater number of host addresses and the greater security of IPv6.

7. As to claims 4, 7-8, and 10-11, the claims are rejected for the same reasons as claim 1 above.

8. As to claims 5 and 13, the claims are rejected for the same reasons as claim 2 above.

9. As to claims 6 and 14, the claims are rejected for the same reasons as claim 3 above.

10. As to claim 9, Tripunitara and Akgun disclose the invention substantially as in parent claim 4, including storing cache entries with a residency lifetime greater than in said address resolution cache (Tripunitara: Col. 5, ln. 65 – Col. 6, ln. 3).

11. As to claim 12, the claim is rejected for the same reasons as claim 9 above.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the Notice of References Cited (PTO-892).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Whipple whose telephone number is (571) 270-1244. The examiner can normally be reached on Mon-Fri (8:30 AM to 5:00 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BPW

Brian P. Whipple  
7/18/07

  
BUNJOB JAROENCHONWANIT  
SUPERVISORY PATENT EXAMINER  
7/19/07